

# **Exhibit 1**

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25 UNITED STATES DISTRICT COURT  
26 NORTHERN DISTRICT OF CALIFORNIA  
27 SAN FRANCISCO DIVISION

28 GOOGLE LLC,  
29 Plaintiff and Counter-defendant,  
30 v.  
31 SONOS, INC.,  
32 Defendant and Counter-claimant.

33 Case No. 3:20-cv-06754-WHA  
34 Related to Case No. 3:21-cv-07559-WHA

35 **REBUTTAL EXPERT REPORT OF  
36 DR. KEVIN C. ALMEROOTH FOR  
37 “PATENT SHOWDOWN”**

1 [REDACTED]  
2 [REDACTED]  
3 [REDACTED]  
4 [REDACTED]  
5 [REDACTED]  
6 [REDACTED]  
7 [REDACTED]

8 **B. Evidence of Secondary Considerations of Non-Obviousness**

9 **1. Praise by Others**

10 972. I have seen evidence that Sonos's S2 products and Sonos's zone scene technology  
11 has received significant praise in this industry by journalists and others in the audio space since  
12 Sonos's release of this technology in 2020. This supports my opinion that claim 1 of the '885  
13 Patent would not have been obvious to a POSITA at the time of the invention.

14 973. For example, on May 7, 2020, *Executive Traveler* praised the Sonos S2 products  
15 by stating "Sonos promises the S2 app's revamped screens "will make it even simpler for customers  
16 to search for content and control sound", but we're most excited about the ability to save 'room  
17 groups'." SONOS-SVG2-00062279 - SONOS-SVG2-00062291 at 285.

18 974. As another example, on June 30, 2020, *Gearbrain* praised the Sonos S2 products  
19 by recognizing that Sonos's zone scene technology "makes it easy to assign speakers to floors,  
20 with groups called 'upstairs' and 'downstairs', within the app." SONOS-SVG2-00062342 -  
21 SONOS-SVG2-00062346 at 344.

22 975. As another example, on June 8, 2020, *CNN* touted the advantages of Sonos's zone  
23 scene technology as "the best feature of [the] Sonos S2 [app]" because it provides "the ability to  
24 save a group of speakers as a preset." SONOS-SVG2-00062361 - SONOS-SVG2-00062364 at  
25 363.

26 976. As another example, *Emotivv* praised the Sonos S2 products and Sonos's zone  
27 scene technology by stating "[a] new feature called 'Room Groups', introduced in the Sonos S2  
28 update, allows users to create lasting groups of particular zones that you often use in unison – the

1 lounge and kitchen, perhaps – so that you don't have to manually group the rooms together every  
 2 time. Ultimately, Sonos is still the smoothest multi-room set-up going.” SONOS-SVG2-00062368  
 3 - SONOS-SVG2-00062369 at 368

4 977. As another example, on May 6, 2020 *AI* praised the Sonos S2 products and Sonos's  
 5 zone scene technology by stating that the Sonos S2 products have “an improved user experience  
 6 and finally delivers saved room groups.” SONOS-SVG2-00062381 - SONOS-SVG2-00062387 at  
 7 385.

8 978. As another example, on March 17, 2020 *Engadget* praised the Sonos S2 products  
 9 and Sonos's zone scene technology by recognizing that “[c]urrently, you need to re-group all your  
 10 speakers on an individual basis,” but Sonos's zone scene technology “should make common  
 11 grouping configurations much easier.” SONOS-SVG2-00062403 - SONOS-SVG2-00062406 at  
 12 404.

13 979. As another example, *TechRadar* recently praised the Sonos S2 products and  
 14 Sonos's zone scene technology by recognizing that Sonos's zone scene technology “should allow  
 15 you to get entire areas of your home – downstairs, for example – playing music much more quickly  
 16 than before.” SONOS-SVG2-00062407 - SONOS-SVG2-00062415 at 408.

17 980. As another example, on June 9, 2020 *Audioholics* praised the Sonos S2 products  
 18 and Sonos's zone scene technology by recognizing the “improved usability” with Sonos's zone  
 19 scene technology: “One new feature will be ‘Room Groups,’ which allows the user to create groups  
 20 of particular zones that are often used together — the kitchen and living room, the bedroom and  
 21 bathroom, etc. Before this update, users would have to group these zones together manually, each  
 22 time they started listening.” SONOS-SVG2-00062429 – SONOS-SVG2-00062432 at 430.

23 981. As another example, on May 7, 2020 *The Mac Observer* praised the Sonos S2  
 24 products and Sonos's zone scene technology by recognizing Sonos's “Room Groups” as “the most  
 25 beneficial announced feature” that “promises to make [ ] Sonos systems a little smarter about  
 26 keeping certain sets of speakers linked” and further describing the feature as a “convenience  
 27 benefit.” SONOS-SVG2-00062433 – SONOS-SVG2-00062437 at 434.

28 982. As another example, on March 17, 2020 *TechHive* praised the Sonos S2 products

1 and Sonos's zone scene technology by noting "the new OS and app will have a new feature called  
 2 'room groups,' which enable you to define a room containing several Sonos speakers and control  
 3 all of them at the same time. This could be very useful ...." SONOS-SVG2-00062443 – SONOS-  
 4 SVG2-00062448 at 444.

5 983. As another example, on June 8, 2020 *MobileSyrup* praised the Sonos S2 products  
 6 and Sonos's zone scene technology by noting "You can even link speakers together into pre-set  
 7 groups to set up a multi-room experience much quicker, which is handy if you have lots of  
 8 speakers. ... Now, with these new groups, I can make a four-speaker group that I can push music  
 9 or podcasts to more quickly." SONOS-SVG2-00062449 - SONOS-SVG2-00062453 at 449.

10 984. As another example, on January 14, 2021 *Yahoo! News* praised the Sonos S2  
 11 products and Sonos's zone scene technology by recognizing that "the ability to save room  
 12 groupings" makes it "easier to play music in multiroom situations with just a tap or two." SONOS-  
 13 SVG2-00062454 - SONOS-SVG2-00062461 at 455.

14 985. As another example, on June 13, 2020 *Trusted Reviews* praised the Sonos S2  
 15 products and Sonos's zone scene technology by touting that "improvements have been made to  
 16 room groups" that "will remember commonly-grouped rooms, letting you target music to areas  
 17 faster than the current process, where rooms have to be individually grouped together." SONOS-  
 18 SVG2-00062469 - SONOS-SVG2-00062472 at 470.

19 986. I have also seen evidence that the accused Google products and the features accused  
 20 of infringing claim 1 of the '885 Patent have received praise in this industry by journalists and  
 21 others in the audio space. This further supports my opinion that claim 1 of the '885 Patent would  
 22 not have been obvious to a POSITA at the time of the invention. In my opinion, there is a sufficient  
 23 nexus between this evidence and claim 1 of the '885 Patent for at least the reason that the accused  
 24 Google products practice claim 1 of the '885 Patent as I have opined in my Opening Expert Report.

25 987. As one example of praise for the accused Google products, *Venturebeat* praises the  
 26 accused products and their ability to create saved speaker groups, noting that this feature is  
 27 "amazing." SONOS-SVG2-00062098 - SONOS-SVG2-00062106 at 098, 100 (listing "10 things  
 28 to try with your new Google Home smart speaker," including "1. Make a speaker group," which

1 the article touts as “*amazing*”).

2 988. As another example, *CNET* praises the accused products and their ability to create  
 3 saved speaker groups. SONOS-SVG2-00062107 - SONOS-SVG2-00062109 at 108 (offering “5  
 4 Google Home tips for people who love music,” including “setting up a speaker group so that the  
 5 Google Home will play music on multiple speakers in your home,” such that “when you select this  
 6 group, your rockin’ tunes will lure partygoers out of your kitchen and to the other rooms in your  
 7 house where you’ve got speakers.”);

8 989. As another example, *GamersNavy* praises the accused products and their ability to  
 9 create saved speaker groups. SONOS-SVG2-00062262 - SONOS-SVG2-00062265 at 262  
 10 (touting Google “speaker group” functionality as a “***convenient feature*** for those who want to mix  
 11 multiple cast devices for audio streaming.”).

12 990. As another example, on November 19, 2018, *Slash Gear* praises the accused  
 13 products and their ability to create saved speaker groups, explaining that the accused speaker group  
 14 functionality is a useful and effective feature. SONOS-SVG2-00062266 - SONOS-SVG2-  
 15 00062275 at 266 (touting that Google’s “speaker group” functionality “***effectively increases the***  
 16 ***number of audio products available in one’s home***, giving them a greater number of options for  
 17 playing content,” and “is ***useful*** for providing audio in more than one room at a time.”).

18 991. As another example, on November 19, 2018, *The Verge* praises the accused  
 19 products and their ability to create saved speaker groups, noting the same as a “handy feature.”  
 20 SONOS-SVG2-00062276 - SONOS-SVG2-00062278 at 276 (touting Google “speaker group”  
 21 functionality as “a ***handy feature*** for those who want to combine multiple Google Cast-compatible  
 22 devices for simultaneous audio streaming.”).

23 992. As another example, on October 19, 2018, Google’s own blog, *The Keyword*,  
 24 praises the accused products and their ability to create saved speaker groups. SONOS-SVG2-  
 25 00062292 - SONOS-SVG2-00062294 at 292-93 (Google Product Manager sharing “five reasons  
 26 we’re excited about our newest Chromecast,” including being “able to add Chromecast to speaker  
 27 groups, so you can listen to your music in sync throughout the house.”).

28 993. As another example, on November 3, 2016, *Ars Technica* praises the accused

1 products and their ability to create saved speaker groups, noting that it is a super easy way to set  
 2 up whole-home audio and a reason to buy the Google Home product. SONOS-SVG2-00062298 -  
 3 SONOS-SVG2-00062301 at 300 (recognizing Google's "speaker group" functionality and touting  
 4 that this functionality "allow[s] you to play synced audio across multiple devices in your home.  
 5 It's a lot like a Sonos—*a super easy way to set up whole-home audio*," and "it's *one of the best*  
 6 *reasons to buy a Google Home*.").

7 994. As another example, on February 1, 2022 *Android Police* praises the accused  
 8 products and their ability to create saved speaker groups. SONOS-SVG2-00062325 - SONOS-  
 9 SVG2-00062330 at 328 (touting Google "speaker group" functionality as a "*simple and*  
 10 *convenient* way to group all your Google Home speakers.").

11 995. As another example, no February 12, 2018, *Make Use Of* praises the accused  
 12 products and their ability to create saved speaker groups, calling it one of the best features of the  
 13 accused products. SONOS-SVG2-00062331 - SONOS-SVG2-00062333 at 331 (touting that "*one*  
 14 *of the best features* you might overlook is the ability to group speakers into zones" by creating  
 15 "speaker groups").

16 996. As another example, on January 12, 2017, *Android Central* praises the accused  
 17 products and their ability to create saved speaker groups, explaining that it is one of the coolest  
 18 features and the reason that the Chromecast Audio is the "best solution" for a home audio setup.  
 19 SONOS-SVG2-00062334 - SONOS-SVG2-00062337 at 334 (touting that "*[o]ne of the coolest*  
 20 *features* of Chromecast Audio and the Google Home app is the grouping setting, and "*this reason*  
 21 *alone makes the Chromecast Audio the best solution* for a complete home audio setup.").

22 997. As another example, on December 22, 2019, *Mobile Syrup* praises the accused  
 23 products and their ability to create saved speaker groups, calling it a "killer feature." SONOS-  
 24 SVG2-00062338 - SONOS-SVG2-00062341 at 338 (touting that Google's "speaker group"  
 25 functionality is "*one of Google Home/Nest device's killer features*.").

26 998. As another example, on November 20, 2018, *Thurott* praises the accused products  
 27 and their ability to create saved speaker groups. SONOS-SVG2-00062365 - SONOS-SVG2-  
 28 00062367 at 365 ("I added the Chromecast Ultra in the living room, which is connected to our TV,

1 and the Google Home and Lenovo Smart Display in our kitchen. So when I cast Google Play Music  
2 to the [speaker] group, it played via six different speakers (and/or speaker sets). *Nice.*.”).

3 999. As another example, *The Next Web* praises the accused products and their ability to  
4 create saved speaker groups. SONOS-SVG2-00062473 - SONOS-SVG2-00062477 at 474  
5 (expressing excitement over Google’s “speaker group” functionality: “***I’m pumped for this,***  
6 because I’ve got a decent-sounding Home speaker, and a Chromecast plugged into my TV (which  
7 is in turn connected to this soundbar), and I’ve been dreaming of having them play nice together.”).

8 [REDACTED]

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6 **XVIII. RESERVATION OF RIGHT**

7 1087. I reserve the right to further expound on my opinions regarding the validity of claim  
8 1 of the '885 Patent in subsequent declarations, reports, and/or at trial.

9  
10 Dated: July 27, 2022

*Kevin C Almeroth*

11 By: \_\_\_\_\_

12 Kevin C. Almeroth

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